



# Enhancing Animal Disease Traceability

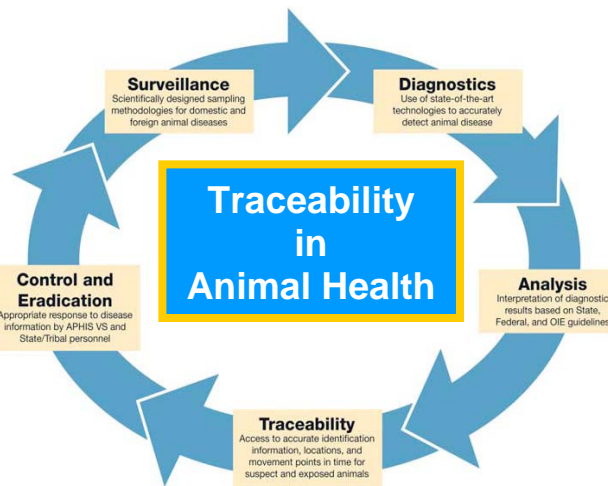
## Background

The California Department of Food and Agriculture (CDFA), in partnership with the United States Department of Agriculture, (USDA) has managed animal health programs in the State for over a century. Programs include surveillance for animal diseases that impact animal agriculture and public health, tracing of diseases to their source, and controlling and eradicating animal diseases.

This partnership has successfully eradicated diseases including, Brucellosis, Cattle Tick Fever, Foot and Mouth Disease, Scabies, and Vesicular Stomatitis. However, the risk of disease introduction into the State is real. In the past five years, California faced outbreaks of Exotic Newcastle Disease in poultry, Tuberculosis in cattle, West Nile Virus in horses, Pseudorabies in swine, and Scrapie in sheep. Movement of large numbers of animals and people, in and out of the state, places California's livestock at an ever-increasing risk to disease.

Disease outbreaks directly impact producers of affected animals and may have implications for local, regional or statewide producers through restrictions on animal and product movement. To determine the extent of a disease outbreak, animal health officials use the affected herd or flock animal identification and movement records to identify other potentially affected herds or flocks. The control of an outbreak depends on the prompt identification of other potentially exposed or affected animals and implementation of appropriate control measures.

Inadequate animal identification and movement records impeded the investigation and response to California's 2002 Tuberculosis outbreak. To ensure the tuberculosis-free



status of the state, CDFA and USDA personnel tested almost 900,000 cattle on 700 premises.

The involvement of food animals in the much-publicized 2007 melamine feed contamination case is a good example of the importance of animal traceability in protecting public health. The danger of eating pork from swine fed the contaminated feed was unknown, so location of these animals was necessary. Inadequate farm records compromised the efforts to locate animals that had eaten contaminated feed and been moved from the farm.

Currently, private sector, federal and state traceability programs lack common standards and integration essential for an optimal level of traceability for disease containment in an outbreak.

## National Animal Identification System (NAIS)

Traceability is the ability to follow certain animal movements through production channels. The USDA, in partnership with states and livestock producers, is developing the National Animal Identification System (NAIS) to enhance animal disease traceability in the United States. The NAIS design is a substantial improvement to the current fragmented animal traceability systems and provides animal health officials with effective tools for response to disease situations. The main components of NAIS are:

- **Premises Identification** - location of properties involved in animal agriculture
- **Unique animal identification** or group/lot identification of animals involved in commerce
- **Record keeping** on certain **animal movements** between premises



NAIS Species Working Groups (SWG), comprised of producers and animal health officials, advise USDA in the development of NAIS plans for cattle, swine, sheep, bison, poultry, goats, horses, llamas, alpacas, deer, and elk. Implementation of NAIS is to be prioritized by species and production sector. Traceability of cattle is the highest priority and movement of imported cattle is of greatest concern. The Scrapie Eradication Program provides a degree of traceability so implementation of NAIS for sheep is a lower priority.

## Premises Identification

Animal health agencies have issued Premises Identification Numbers (PIN) to manage animal health programs for many years to trace interstate animal movements, match laboratory samples to premises and identify disease infected or exposed premises in an outbreak. Unfortunately, some state premises identification systems use numbering criteria that allow for duplicate numbers. The NAIS has guidelines for issuing a National PIN that prevents duplicate number assignment. CDFA is certified to issue National Premises Identification Numbers (PIN) in California.

The PIN only represents the physical address of a premises location.

**PIN =**

Seven character unique identifier associated with a LOCATION  
Example: ABC123K

Premises of importance for traceability in animal health include dairies, feedlots, ranches, farms, veterinary clinics, auction markets, fairs, and any other locations with animal agriculture associations. A PIN is required to obtain official animal identification devices (i.e., ear tags) and for reporting certain animal-related events. The PIN permanently identifies the premises, even if ownership changes.

## Animal Identification

The USDA recognizes a 15-digit Animal Identification Number (AIN) and a 15-character Group-Lot Identification Number (GIN) for use in all official disease control programs. Other numbering systems still in use for disease programs such as Brucellosis and Scrapie will eventually transition to the AIN system.

**AIN =**

Fifteen digit unique identifier associated with an ANIMAL  
Example: 840 123 456 789 012 345

**GIN =**

Fifteen character identifier associated with a group/lot of ANIMALS  
Example ABC123K 010107 01

For cattle, the preferred identification method is a visible electronic identification tag. More specifically, a compliant, tamper-proof, Radio Frequency Identification (RFID) tag placed in the left ear, commonly referred as an 840 tag. Cattle brands in use in 15 states will continue to supplement animal traceability.



Other SWG are considering other types of identification technology such as implantable microchips for horses.

## Animal Tracing

Reportable animal-related events such as an official test for a control program (i.e. Tuberculosis), will require the following information for NAIS:

- Animal Identification Number (AIN)
- Premises Identification Number (PIN)
- Event date
- Event type (e.g., test, move in, lost tag, etc.)

RFID reader technology improves the speed and accuracy for recording this essential information. Producers may leverage this same information to enhance their animal inventory and production management systems.



The implementation of improved and uniform methods of animal identification and traceability are critical elements for the protection of animal agriculture. Participation in the NAIS is beneficial for the protection and management of animal health in our country.

## Information Resources

[www.cdfa.ca.gov/pais](http://www.cdfa.ca.gov/pais)

[www.usda.gov/nais](http://www.usda.gov/nais)

### FOR MORE INFORMATION CONTACT:

#### USDA and CDFA Animal Health Branch Offices

Premises & Animal Identification	916-657-4789
Sacramento Headquarters	916-654-1447
Modesto District	209-491-9350
Ontario District	909-947-4462
Redding District	530-225-2140
Tulare District	559-685-3500
USDA Vet Services - Area Office	916-857-6170

Obtain a Premises Identification Number at:

[www.californiaid.org](http://www.californiaid.org)

or by calling 866-325-5681